

## ELECTROSPRAY MASS SPECTROMETER AND ION SOURCE

### ABSTRACT OF THE DISCLOSURE

An inexpensive electrospray mass spectrometer capable of performing measurements consecutively from the ESI mode to the cold-spray ionization mode and vice versa. The electrospray mass spectrometer has an electrospray ion source, a nebulization nozzle, and a sampling orifice. The axes of the nozzle and orifice intersect each other. The instrument has a movable cold-spray desolvation chamber. In the electrospray ionization mode, the desolvation chamber is placed off the axis of the nebulization nozzle. In the cold-spray ionization mode, the desolvation chamber is set on the axis of the nebulization nozzle.